

THE ANCESTRY OF MAN

By G. ELLIOT SMITH

First of all I want to express to the Directors of the National Geological Survey my profound gratitude for the invitation to visit Peking and for the privilege of seeing the impressive results of the work carried on under their supervision—surely the most significant achievement in geology and palaeontology the last decade has witnessed. Before my arrival in this fascinating city I had no conception of the magnitude of the Survey's achievement. Hence what Dr. Wong showed me came as a real revelation. Since then Dr. Young has allowed me to see the great collection of vertebrate fossils from Chou Kou Tien and to appreciate something of the vast labour and skill involved in developing and interpreting their significance. I should like to take this opportunity of congratulating the Survey on the work its officers have accomplished under conditions of exceptional difficulty. The results of their devoted labours are certain to exert a far-reaching influence, economic as well as scientific and cultural, not only in China itself but throughout the world.

I need hardly remind you that my knowledge of the Geological Survey's work has in the past been the result of my interest in the fossil remains of man and the friendship with Dr. Davidson Black which I have enjoyed for many years. Hence like the general public the glamour of what I think is the most important and thrilling discovery of our early ancestry had blinded me to the true extent of the field work in geology and palaeontology, which was responsible for the finding of Peking Man and for establishing his status as the best accredited if not the most venerable of our forefathers.

I hope that the interest aroused throughout the world by this in many respects unique event will direct fuller attention to the importance of the work now being carried on by the Survey under the direction of Drs. Ting and Wong.

Perhaps you will allow me at the outset to give my impressions of the remains of *Sinanthropus*, with which I have just become personally acquainted. I do not forget that I am addressing those who are intimately acquainted with the fossils and have borne the heat and burden of the work in discovering, de-

veloping and interpreting them. But just as a mother who is fully convinced of the unique charm of her own offspring does not usually resent stranger's expression of admiration, perhaps you will not think me tiresome if I try to explain why I regard *Sinanthropus* fossils as the most valuable and illuminating evidence of man's early history and associations that has yet been revealed. Some months ago I expressed this opinion after carefully studying the reports written by Dr. Davidson Black, Mr. Pei, Dr. Young and Father Teilhard de Chardin, as well as the illuminating writings of Drs. Grabau, Andersson, Bohlin, Zdansky and others. Now I know that what may have seemed extravagant language was really an underestimate of the vast importance of this discovery.

The conditions under which the specimens were found, the fact that the remains of several individuals were recovered and that they provided fuller data than either of their contemporaries in Java and England, and the thoroughness of the investigations all lent particular value to the work in Peking. Examination of the actual fossils, with the fresh information, as yet unpublished, which Dr. Davidson Black has given me, was a most thrilling revelation. The significance of the knowledge these impressive fossils provide far transcends even the sanguine hopes I had entertained. I have no hesitation in saying that the work which is being done here on the fossil remains of man really represent a revolution in such studies. In place of the shifting sands of such controversial and apparently incompatible material as *Pithecanthropus* and *Eoanthropus* afforded, we now have a solid foundation of coherent evidence upon which we can build a reliable edifice of knowledge of the earliest men at present known to us.

I should like to emphasize the fact that such a result could not have been attained (and the interminable controversies provoked in the past by similar discoveries avoided) if the work of investigating and recording every stage of the work had not been done with exceptional thoroughness and conspicuous insight, and set forth with proper restraint and sobriety of language.

The world has been so impressed by these considerations that it has accepted without question the interpretation the officers of the Cenozoic Laboratory have submitted.

On this result the Geological Survey deserves the heartiest congratulations.

The special importance of the discovery of the *Sinanthropus* remains lies in the fact, not only that the material is more complete and abundant than that of either the Ape-man of Java or of the Piltdown man and that its geological age and associations are unquestionable, but also because it reveals the extent of variation of a primitive human genus and links in intimate association the other two genera (*Pithecanthropus* and *Eoanthropus*) the features of which have hitherto been regarded as wholly irreconcilable with one another. Thus the evidence provided by the Peking Man enhances the value of our knowledge of the other primitive men and confers upon it a value and inspires a confidence which hitherto have not been always admitted. It puts an end to the perennial controversies as to whether *Pithecanthropus* was human or Simian, or whether the ape-like jaw of the Piltdown man could really be associated with his obviously human skull.

When Dr. Davidson Black submits his report on the beautiful cast he has made of the braincase we shall acquire a much fuller and more precise illumination of the nature of the primitive human brain than I had ever ventured to think possible. The evidence which this brain-shape will provide will throw a flood of light upon the organ which was responsible for conferring upon man his human qualities of mind and skill.

What I have been saying is well known to my hearers, but as modesty seals their lips, a visitor can perform a useful function by telling the world that the devoted team of investigators in the Cenozoic Laboratory of the Geological Survey, has revealed to us for the first time in a way that carries conviction what our earliest ancestors were like and how they lived, and much information as to the factors involved in their evolution.

Whether or not this epoch-making event throws any light on the location of the cradle of mankind is a very difficult problem, which I expect will provide material for many discussions during the next couple of weeks. Face to face with Dr. Grabau, Dr. Roy Andrews and Dr. Davidson Black, who favour the view that Asia witnessed the birth of the Human Family, it would be unpardonable if I were to shirk this issue. There is no conclusive evidence in favour of any of the various suggestions, hence there is a wide field for unhampered speculation. The fact that different early Pleistocene (or, as Dr. Grabau would say, Pliocene) men have been found as far apart as Java is from England and China, suggests that the common ancestor of all three must have lived a long time before these fossils were deposited and that he must have been an

active wanderer. Hence no one of these sites (in Java, England and China) necessarily has any intimate relation to the original home of mankind.

As two of the three genera (and the most primitive) were found in the Far East, you may ask why I still favour Darwin's suggestion of Africa as the cradle of mankind? Obviously it is a more working hypothesis that may have to be discarded, if any valid evidence comes into conflict with it.

In Miocene times there were living in Northern India many different kinds of anthropoid apes, who were probably the ancestors of the modern apes and man. Believing that the Chimpanzee, Gorilla and the extinct ape *Dryopithecus* are much more nearly akin to man than the Orang-Utan and the Gibbon, I am still impressed by the suggestion made by Darwin in 1871 that man's ancestors probably accompanied their nearer relatives when they wandered west from India towards Africa and Europe, rather than toward the East like the Orangs and Gibbons. This may involve nothing more than the possibility that somewhere in Persia or Turkestan the place may be found which would satisfy all our varied contentions. I think it worth while however, by means of a provocative claim for Africa to open a discussion which may let fresh light into the dark corners of my own mind, if not yours.

In the subsequent lectures given to other audiences I propose to discuss other facets of the great problems of human history, the evolution of the human mind and its early expressions in action.